

**U.S. Department of the Interior
National Park Service
Acadia National Park
Bar Harbor, Maine**

**Finding of No Significant Impact
Duck Brook Road Rehabilitation**

Introduction

The National Park Service (NPS) proposes to make improvements to Duck Brook Road in Acadia National Park to correct drainage and repair the road surface, and to formalize parking facilities near the approach to the Duck Brook Carriage Road Bridge. These actions are necessary to maintain use of the road and to protect natural and cultural resources along the road corridor.

Duck Brook Road runs between State Route 233 near Eagle Lake to West Street Extension in the village of Bar Harbor. Constructed in about 1901, Duck Brook Road originally served as a route for horse-drawn wagons and sleds to transport ice from Eagle Lake to Bar Harbor. Duck Brook Road now provides access to the carriage road system via Duck Brook Carriage Road Bridge, and to drinking water pipe, pumping, and storage facilities for the Town of Bar Harbor. Duck Brook Road is approximately two miles in length. While vehicle traffic on the road is light, the road provides the primary access to the park's historic carriage road system for visitors travelling on bikes from Bar Harbor. In the winter, the section of the road north of the pumping station is closed to vehicular traffic and is not plowed.

An environmental assessment (EA) was released for a 30-day public comment period July 17, 2002, in accordance with the National Environmental Policy Act (NEPA) and NPS Director's Order 12 (DO-12). The EA described the goals of the project, proposed three alternatives for improving the roadway and parking, analyzed the effects of each alternative on the human environment, and solicited public comment.

Alternatives Considered

The three alternatives proposed and analyzed in the EA included:

- A) No Action,
- B) Rehabilitating to Maintain Current Character (NPS Preferred Alternative); and
- C) Rehabilitating to Modern Standards.

Alternative A

Under the No Action Alternative there would be no rehabilitation of the roadway. The existing informal parking near the approach to Duck Brook Carriage Road Bridge would persist as well. Under this alternative, the roadway and drainage would be repaired incrementally if and when funds became

available; however, funding would be insufficient to do large-scale repair or rehabilitation, to protect natural or cultural resources, or to solve major structural issues.

Alternative B

The NPS Preferred Alternative (Alternative B) would include rehabilitating Duck Brook Road while retaining much of its current width, alignment, and profile. The paved surface of the road would be kept at its current width of 16 feet. Two, one-foot gravel shoulders would be added to provide structural support for the edges of the paved travel lanes. Rehabilitation would include replacing drainage culverts under Duck Brook Road, instructing new drainage ditches (mostly along the east side of the road), reconstructing the road base, and repaving. In most areas, the road profile would be raised no more than 12 inches. Side slopes from the edge of the shoulders to the toe of slope would be minimized, with a 2:1 (horizontal to vertical) ratio. New directional signs would be installed as needed. In some areas, overhead utility lines would be moved away from the road to remove poles from ditches and improve drainage.

Alternative B would also include formalizing the parking that occurs around Duck Brook Carriage Road Bridge. Parallel parking spaces would be improved for about 10 passenger vehicles on the east side of Duck Brook Road. The existing informal gravel parking area at the bridge would be removed and the area landscaped with native species. Only a travel lane at the bridge entrance would remain, to provide vehicle access to the carriage roads for emergency and administrative uses. Coping stones would line the narrowed area to prevent vehicles from parking close to the bridge.

Appropriate mitigative measures would be taken before, during, and after construction to minimize impacts to adjacent areas, natural and cultural resources, and visitors. Mitigation measures would include erosion and sediment controls, trapping and moving amphibians during the spring, revegetating with native species, and timing construction so as not to interfere with peak visitor season, hawk nesting, or amphibian migrations. The cost associated with Alternative B would be approximately \$1,200,000.

Alternative C

Alternative C proposes upgrading and widening Duck Brook Road to meet NPS and Federal Highway Administration standards for width, slope, and curve radius. As required by the American Association of State Highway and Transportation Officials standards for rural recreational and scenic roads with low traffic volumes and speeds, pavement would be widened to 18 feet with two, one-foot gravel shoulders. Widening would occur on the east side of the road to minimize, as much as possible, adverse effects to wetlands. This widening would require a substantial cut into the hillside east of the road and removing vegetation along the slope. All trees and obstructions, such as ledge outcrops, trees, and utility poles within 7 to 10 feet of the road edge would be removed. Other geometric improvements, including excavating to lower the grade of the road and changing the curvature of the road to improve vertical and horizontal sight distances at some locations, would be required. Signs and rumble strips would be used to reduce traffic speeds at the curve north of Duck Brook Carriage Road Bridge. Rehabilitation would include improving drainage and the road surface as in Alternative B. Blasting would likely be required to remove ledge and modify the vertical profile of the road. Side slopes adjacent to the road would be graded to a ratio of 4:1 (horizontal to vertical), allowing an area for drivers to recover if their vehicle swerved off the road. New directional signs would be installed as needed.

Alternative C would also include formalizing the parking that occurs around Duck Brook Carriage Road Bridge. The area at the bridge would be treated much as in Alternative B. This alternative would provide perpendicular (rather than parallel) parking for about 10 passenger vehicles on the east side of Duck Brook Road.

As in Alternative B, mitigation measures would be used to reduce adverse effects to natural and cultural resources. The cost associated with Alternative C would be approximately \$2,500,000.

Environmentally Preferred Alternative

The Environmentally Preferred Alternative, as defined by DO-12, is the alternative that causes the least damage to the biological and physical environment, and which best protects, preserves, and enhances historic, cultural, and natural resources. In this case, the NPS Preferred Alternative is also the Environmentally Preferred Alternative. Implementing the preferred alternative would rehabilitate the roadway while having the least adverse impacts to cultural and natural resources of the three alternatives considered. Minimizing the amount of vegetation removed for formalizing the parallel parking spaces would decrease impacts to viewsheds and cultural landscape, and because the roadway would not be widened, there would be only minor impacts to wetlands and water resources in the vicinity of the project. Impacts to visitor experiences would be beneficial and moderate as a result of improvements to the roadway.

Alternative A would result in continued erosion of sediment into adjacent wetlands. Cars haphazardly parked near the Duck Brook Carriage Road Bridge would continue to affect the cultural landscape. The road would continue to deteriorate, and would become hazardous and unpleasant to drive.

Alternative C would have a greater adverse effect on wetlands, wildlife habitat, and cultural resources than other alternatives. Road surface, side-slopes, and utility corridors would affect a wider area along the road corridor. These effects would also be more lasting.

Decision

The National Park Service will rehabilitate Duck Brook Road to maintain its current character as described in Alternative B, the NPS preferred alternative. This decision is based on the analysis of effects as provided in the EA, best professional judgement of park staff, and consideration of public comments.

Why the Selected Alternative will not have a Significant Effect on the Human Environment

Consideration of effects described in the EA and a finding that they are not significant is a necessary and critical part of this FONSI as required by the Code of Federal Regulation (40 CFR 1508.13). Significance criteria are defined (in 40 CFR 1508.27) to consider direct, indirect, and cumulative impacts and the

context and intensity of impacts. Mitigation measures described in the EA and incorporated into the preferred alternative, including construction monitoring and sediment and erosion control are generally required by laws, regulations, or NPS policies and are adopted by this decision.

Context

This measure of significance considers the setting within which an impact was analyzed in the environmental assessment, such as the affected region, society as a whole, affected interests, and/or locality. In the environmental assessment, the intensity of impacts were evaluated within a local (i.e., project area) context, while the intensity of the contribution of effects to cumulative impacts were evaluated in a regional context, or in the case of special status species within the context of species range. This decision and the preferred alternative affect only the immediate local area in terms of resources, employees, local residents, and visitors. Therefore, any possible impact would be negligible or minor or would be held below the significance threshold, as identified below.

Intensity

This measure of significance refers to the severity of impacts, which may be both beneficial and adverse, and considers measures that would be applied to minimize or avoid impacts. Impact thresholds used in this document include:

Negligible: the impact is barely measurable with no perceptible effects.

Minor: the impact is slight but detectible and localized.

Moderate: the impact is readily apparent and measurable.

Major: the impact is severely adverse or exceptionally beneficial.

Significance Criteria

As defined in 40 CFR 1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse

Improving the surface of the roadway and formalizing parking at Duck Brook Carriage Road Bridge would enhance the experience of driving the road and viewing the bridge and surrounding environment for the foreseeable future. It would reduce long-term maintenance costs and prevent ongoing adverse effects on adjacent wetlands from erosion and sedimentation. Roadwork would result in minor, short-term adverse effects to wetlands, wildlife, wildlife habitat, and visitor experiences, especially during construction.

Degree of effect on public health or safety

Rehabilitating Duck Brook Road would result in being able to continue to access and maintain a public drinking water system, while minimizing potential adverse effects to waterlines that run adjacent to and under the road surface. This would have a long-term, moderate beneficial effect on public health. The effect on road safety is unknown: there are few, if any, records of accidents. Currently road safety may be influenced by the broken road surface; it is currently so irregular that it forces drivers to reduce vehicle speeds and focus on the road. Although the speed limit on Duck Brook Road will remain unchanged, an

improved surface may result in higher vehicle speeds. The NPS will continue to patrol the road to enforce speed limits.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

Prime farmlands, wild and scenic rivers, and ecologically critical areas would not be affected. However, wetlands and historic or cultural resources are located adjacent to the project site.

A draft Statement of Findings For Wetlands was published as an appendix to the EA. It estimated wetland impacts to be 0.43 acres or less for Alternative B. However, this Statement was based on 50% drawings of preliminary designs that were closer in concept to Alternative C, with wide side slopes and a much higher road profile. The National Park Service in early September 2002 analyzed wetland impacts (attached) based on 95% drawings of Alternative B. These designs reflected changes to minimize adverse effects to wetlands, such as lowering the road profile, reducing side slopes, and minimizing road width. Wetland impacts were estimated to be approximately 0.05 acres. Because the project will affect less than 0.1 acres, a final Statement of Findings is not necessary and will not be prepared.

Consultation with the Maine Historic Preservation Commission (State Historic Preservation Office) in compliance with Section 106 of the National Historic Preservation Act will be completed prior to any on-site construction to assure that the project would have no adverse effect on cultural resources adjacent to the project site.

Degree to which effects on the quality of the human environment are likely to be highly controversial

As measured by only receiving three comments from the public, this project and its impacts are not controversial. Comments received on the project generally favored the preferred alternative and concurred that the preferred alternative would make necessary improvements while maintaining the character of the roadway with minimal environmental impact.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks

Potential impacts are predictable and known. No highly uncertain, unique, or unknown risks were identified during preparation of the environmental assessment or the public review period.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The selected alternative neither establishes a National Park Service precedent for future actions with significant effects nor represents a decision in principle about a future consideration. Any significant future changes in the management of Duck Brook Road such as making the road one way would also require compliance with NEPA. Future actions entailing rehabilitating or modifying park roads would be evaluated through additional, project-specific planning processes that incorporate requirements of the National Environmental Policy Act and NPS policies.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts

Cumulative impacts are determined by combining the impacts of the preferred alternative with other past, present, and reasonably foreseeable future actions. A 500,000-gallon drinking water storage tank was

built in 2000 and 2001 on the hillside adjacent to Duck Brook Bridge. This created an area of about an acre that has been cleared of trees, but is only minimally visible from the carriage road system. The formalized parking area would be slightly wider than the current roadside parking area, and would require the clearing of a strip of vegetation 5 to 10 feet wide for 200 feet, including a small number of trees. This is not anticipated to affect the viewshed from Duck Brook Carriage Road Bridge. Removing parked cars from the entrance to the bridge will help rehabilitate the historic landscape. There are no present actions in the vicinity of Duck Brook Road, and none are anticipated in the foreseeable future.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources

Duck Brook Road is being evaluated for eligibility to the National Register of Historic Places. Preliminary research indicates that the road is not historically or architecturally significant enough to warrant inclusion; however, a formal determination will be made in consultation with the State Historic Preservation Office. The adjacent carriage roads, including Duck Brook Carriage Road Bridge, are listed on the National Register. Duck Brook Road passes under the Paradise Hill Road Bridge, which is a contributing element of the Park Loop Road. The Park Loop Road is eligible for listing in the National Register. Prior to construction, an archeological survey was completed and no resources are located in proximity to the project area. The Maine State Historic Preservation Office will be consulted to ensure that the project will not adversely impact eligible or listed resources. No on-site work will begin until the NPS has received a notification of no adverse effect from the SHPO.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat

No federally listed threatened, endangered, and candidate species are known to inhabit the general vicinity of Duck Brook Road; however, two state species of concern have been documented to occur in the project area: four-toed salamanders (*Hemidactylium scutatum*) and northern harriers (*Circus cyaneus*). Neither species is officially listed on the Maine Endangered Species List (Title 12 M.R.S.A., Section 7753 paragraph 3), but both are considered rare within the state.

Roadwork will interrupt spring migrations of salamanders from upland areas east of the road, and result in salamander deaths and lower breeding activity. To prevent the loss of animals and allow spring migrations to continue, erosion control barriers will be placed on both sides of the road for most of its length. Gaps will be placed every 60 feet in the erosion control barrier and a pit-fall trap will be placed at each interval to intercept migrating salamanders. These traps will be checked daily, and captured animals will be moved by hand beyond the fence to areas of suitable breeding habitat.

Northern harriers have nested in or near the New Mill Meadow wetland system. Construction activities will be scheduled minimize disturbance effects during the spring nesting season near New Mill Meadow.

Whether the action threatens a violation of federal, state, or local environmental protection law

The selected alternative does not violate any federal, state, or local environmental protection laws, and the NPS will acquire all necessary permits and clearances before implementing the action. The Army Corps of Engineers issued a programmatic general permit for compliance with the Clean Water Act on September 9, 2002. The Maine Department of Environmental Protection issued a notification that the project was exempt for permitting in compliance with the Maine Natural Resources Protection Act. All

aspects of the project will be consistent with the applicable laws of the Maine Coastal Program prior to the commencement of any work.

The project will comply with Section 106 of the National Historic Preservation Act prior to beginning any on-site construction.

Impairment

In addition to reviewing the list of significance criteria, the National Park Service has determined that implementing the preferred alternative will not constitute an impairment of Acadia National Park's resources and values. This determination is based on a thorough analysis of the impacts described in the environmental assessment, consideration of public comments received, and the professional judgment of the park superintendent and Northeast regional director in accordance with the National Park Service's Management Policies (December 27, 2000). Implementation of the selected alternative would not result in major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Acadia National Park; (2) key to the natural or cultural integrity of the park; or (3) identified as a goal in the park's general management plan or other relevant National Park Service planning documents.

Public Involvement

The environmental assessment was made available in local libraries and on the park's internet site for public review and comment during a 30-day period beginning July 15, 2002. In addition, approximately 50 copies of the document were also mailed directly to interested persons, American Indian tribes, and regulatory agencies.

Three comments were received from the public; all preferred Alternative B (the NPS preferred alternative). The U.S. Fish and Wildlife Service also commented during the review period. All comments are attached hereto.

Finding of No Significant Impact

The implementation of the selected alternative will not constitute an action that normally requires preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant adverse effect on the natural, cultural, or human environment. Negative environmental impacts that could occur are negligible or minor in intensity, and short in duration. There are no significant impacts on public health, public safety, threatened or endangered species, historic properties either listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended: /s/ Paul Haertel 9/17/02
Paul F. Haertel Date
Superintendent, Acadia National Park

Approved: /s/ R. McIntosh (for) 9/18/02
Marie Rust Date
Director, Northeast Region